

What is claimed is:

- 1) A method for initiating a Wireless Access Protocol (WAP) push session to push information from a push proxy gateway to a mobile station in a wireless communication network, the method comprising:
  - 5       transmitting an initiation request to the mobile station using a connection-oriented signalling channel between the network and the mobile station, said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.
- 10   2) The method of claim 1 wherein the connection-oriented signalling channel transmits the initiation request without using a store-and-forward mechanism.
- 3) The method of claim 1 wherein the initiation request comprises an identification of the push proxy gateway for establishing the push session.
- 4) The method of claim 1 wherein the initiation request comprises an identification of a  
15       bearer for activating to support the establishing of the push session.
- 5) The method of claim 1 further comprising providing an error message to the push proxy gateway immediately when said transmitting comprises failing to establish a session between the network and the mobile station using the connection-oriented signalling channel.
- 20   6) The method of claim 1 wherein the connection-oriented signalling channel comprises a channel for transmitting Unstructured Supplementary Service Data (USSD).
- 7) The method of claim 6 wherein the initiation request conforms to a WAP protocol for Service Initiation Requests (SIRs).
- 8) The method of claim 6 wherein the initiation request conforms to a USSD protocol  
25       for Unstructured Supplementary Service Requests (USSRs).
- 9) The method of claim 8 comprising:

establishing a connection with the mobile station using the channel for transmitting USSD; and

sending a USSR message requesting the mobile station to activate a Packet Data Protocol (PDP) context and establish a push session with the push proxy gateway.

5 10) The method of claim 1 comprising receiving the initiation request from the push proxy gateway.

11) A method for initiating a Wireless Access Protocol (WAP) push session to receive push information from a push proxy gateway at a mobile station in a wireless communication network, the method comprising:

10 receiving an initiation request at the mobile station using a connection-oriented signalling channel between the network and the mobile station; and

establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.

15 12) The method of claim 11 wherein the connection-oriented signalling channel transmits the initiation request without using a store-and-forward mechanism.

13) The method of claim 11 wherein the initiation request comprises an identification of the push proxy gateway for establishing the push session.

20 14) The method of claim 11 wherein the initiation request comprises an identification of a bearer for activating to support the establishing of the push session.

15) The method of claim 11 wherein the connection-oriented signalling channel comprises a channel for transmitting Unstructured Supplementary Service Data (USSD).

25 16) The method of claim 15 wherein the initiation request conforms to a WAP protocol for Service Initiation Requests (SIRs).

17) The method of claim 15 wherein the initiation request conforms to a USSD protocol for Unstructured Supplementary Service Requests (USSRs).

18) The method of claim 17 comprising:

5        establishing a connection with the network using the channel for transmitting USSD; and

      receiving a USSR message requesting the mobile station to activate a Packet Data Protocol (PDP) context and establish a push session with the push proxy gateway.

10       19) The method as defined in claim 11 comprising providing the initiation request to a Session Initiation Application of the mobile station, the application adapted in accordance with a WAP protocol for initiating a push session.

      20) In a push proxy gateway adapted to push information to a mobile station in a wireless communication network, a method for initiating a Wireless Access Protocol (WAP) push session between the push proxy gateway and the mobile station comprising:

15        transmitting an initiation request to a network node of the wireless communication network for delivery to the mobile station using a connection-oriented signalling channel between the network and the mobile station, said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.

20       21) The method of claim 20 wherein the connection-oriented signalling channel transmits the initiation request without using a store-and-forward mechanism.

      22) The method of claim 20 wherein the initiation request comprises an identification of the push proxy gateway for establishing the push session.

25       23) The method of claim 20 wherein the initiation request comprises an identification of a bearer for activating to support the establishing of the push session.

24) The method of claim 20 further comprising receiving an error message at the push proxy gateway immediately when said network fails to establish a session between the network and the mobile station using the connection-oriented signalling channel.

25) The method of claim 20 wherein the connection-oriented signalling channel comprises a channel for transmitting Unstructured Supplementary Service Data (USSD).

26) The method of claim 25 wherein the initiation request conforms to a WAP protocol for Service Initiation Requests (SIRs).

27) The method of claim 25 wherein the initiation request conforms to a USSD protocol for Unstructured Supplementary Service Requests (USSRs).

28) The method of claim 27 comprising:

    sending a USSR message requesting the mobile station to activate a Packet Data Protocol (PDP) context and establish a push session with the push proxy gateway.

29) A network node of a wireless communication network for initiating a Wireless Access Protocol (WAP) push session to push information from a push proxy gateway to a mobile station via the wireless communication network, the network node comprising:

    a communications system for transmitting and receiving via the wireless network.

    a processor coupled to the communication system for processing received messages and messages for sending; and

    a memory coupled to the processor for storing instructions to configure the processor to:

        transmit an initiation request to the mobile station using a connection-oriented signalling channel between the network and the mobile station, said mobile station establishing a push session in response to the initiation

request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.

30) A mobile station for initiating a Wireless Access Protocol (WAP) push session to receive push information from a push proxy gateway via a wireless communication network, the mobile station comprising:

a communications system for transmitting and receiving via the wireless network

a processor coupled to the communication system for processing received messages and messages for sending; and

a memory coupled to the processor for storing instructions to configure the processor to:

receive an initiation request at the mobile station using a connection-oriented signalling channel between the network and the mobile station; and

establish a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.

31) A push proxy gateway for initiating a Wireless Access Protocol (WAP) push session to push information from the push proxy gateway to a mobile station via a wireless communication network, the push proxy gateway comprising:

a communications system for transmitting and receiving via the wireless network

a processor coupled to the communication system for processing received messages and messages for sending; and

a memory coupled to the processor for storing instructions to configure the processor to:

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transmit an initiation request to a network node of the wireless communication network for delivery to the mobile station using a connection-oriented signalling channel between the network and the mobile station, said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station.